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(FILE 'HOME' ENTERED AT 13:14:08 ON 10 MAR 2003)

FILE 'CAPLUS' ENTERED AT 13:14:14 ON 10 MAR 2003
L1 17263 S CAPILLARY (3W) ELECTROPHOR?
L2 259 S CAPILLARY (3W) (ISOELECTRIC (W) FOCUS?)
L3 3 S CAPILLARY (3W) (ELECTROFOCUS? OR (ELECTRO (W) FOCUS?))
L4 8206 S CAPILLARY (3W) CHROMATOGR?
L5 990 S CAPILLARY (3W) (ELECTROCHROMATOGR? OR (ELECTRO (W) CHROMATOGR
L6 25930 S L1 OR L2 OR L3 OR L4 OR L5
L7 8515 S FRACT? (5A) COLLECT?
L8 990 S L5 AND L6
L9 5949 S FRACT? (2A) COLLECT?
L10 139 S L6 AND L7

=> d l10 21 2534 38 42 58 60 66 67 69 74 75 77 78 79 81 83 85 86 87 89 90 97 99 bib ab
139 ANSWERS ARE AVAILABLE. SPECIFIED ANSWER NUMBER EXCEEDS ANSWER SET SIZE
The answer numbers requested are not in the answer set.
ENTER ANSWER NUMBER OR RANGE (1):21 25 34 38 42 58 60 66 67 69 74 75 77 78 79 81 83 85 86 87 89 90 93 97 99

L10 ANSWER 21 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 2001:82194 CAPLUS
DN 135:2338
TI **Collection** of **capillary electrophoresis** fractions on a moving membrane
AU Magnusdottir, Soffia; Heller, Christoph; Sergot, Philippe; Viovy, Jean-Louis
CS Facolta di scienze, Istituto Policattedra, Universita degli studi di Verona, Strada le Grazie, Verona, Italy
SO Methods in Molecular Biology (Totowa, NJ, United States) (2001), 162(Capillary Electrophoresis of Nucleic Acids, Volume 1), 323-331
CODEN: MMBIED; ISSN: 1064-3745
PB Humana Press Inc.
DT Journal; General Review
LA English
AB A review with 29 refs. Topics discussed include nano-preparative devices; porous glass joint; collection onto a surface; and materials and methods used.
RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 25 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 2000:651335 CAPLUS
DN 133:331645
TI Two-point fluorescence detection and automated **fraction collection** applied to constant denaturant **capillary electrophoresis**
AU Ekstrom, P. O.; Wasserkort, R.; Minarik, M.; Foret, F.; Thilly, W. G.
CS Massachusetts Institute of Technology, Cambridge, MA, USA
SO BioTechniques (2000), 29(3), 582, 584, 586-589
CODEN: BTNQDO; ISSN: 0736-6205
PB Eaton Publishing Co.
DT Journal
LA English
AB Const. denaturant **capillary electrophoresis** (CDCE) has been shown to be a sensitive method to detect point mutations in DNA sequences of 100-bp lengths. Here, we report a significant modifications for the instrumental setup that allows a highly accurate prediction of the elution time of DNA fragments from the capillary and an efficient **collection** of sepd. **fractions**. Fluorescently labeled DNA fragments of TP53 exon 8 wild-type and two mutants (base pair no. 14480 and 14525) are detected at two sep. points of the same capillary. This permits the precise calcn. of the fragment velocity after sepn. in the heated zone because, at room temp. all DNA fragments of the same

length have the same velocity. Such precision permits the selective collection of sepd. fragments using an automated **fraction collector** for addnl. CDCE anal. or sequencing. Also, the two-point detection allows one to rapidly distinguish between double-stranded and single-stranded DNA fragments of the same length, a process that cannot be achieved with a one-point detection system alone. Both modifications greatly improve the procedure to detect novel mutations by means of CDCE.

RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 34 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 2000:125402 CAPLUS
DN 132:330411
TI Automated DNA fragment collection by **capillary** array gel **electrophoresis** in search of differentially expressed genes
AU Irie, Takashi; Oshida, Tadahiro; Hasegawa, Hideki; Matsuoka, Yoshiko; Li, Tao; Oya, Yukio; Tanaka, Toshio; Tsujimoto, Gozoh; Kambara, Hideki
CS Central Research Laboratory, Tokyo, 185-8601, Japan
SO Electrophoresis (2000), 21(2), 367-374
CODEN: ELCTDN; ISSN: 0173-0835
PB Wiley-VCH Verlag GmbH
DT Journal
LA English
AB An automatic DNA fragment collector using **capillary** array gel **electrophoresis** has been developed. A sheath flow technique is used for not only detection but also collection of DNA fragments. In a sheath flow cell, the DNA fragments sepd. by 16 capillaries flow independently into corresponding sampling capillaries. The **fraction collector** consists of 16 sampling trays and each sampling tray is set beneath each end of the sampling capillaries to collect the flow-through DNA fragments. Certain DNA fragments are automatically sorted by controlling the movement of the sampling trays according to the signals from the system. The collector exptl. sepd. two mixts. of polymerase chain reaction (PCR) products: one prepd. by using eight different sizes (base lengths from 161 to 562) of DNAs; and the other prepd. by a differential display (DD) method with cDNA fragments. Collected DNA fragments are amplified by PCR and measured by electrophoresis. DNA fragments with base length differences of one (base lengths 363 and 364) were successfully sepd. A sepd. DNA fragment from the DD sample was also successfully sequenced. In addn., differentially expressed DNA fragments were automatically sorted by comparative anal., in which two similar cDNA fragment groups, labeled by two different fluorophores, resp., were analyzed in the same gel-filled capillary. These results show that the automatic DNA fragment collector is useful for gene hunting in research fields such as drug discovery and DNA diagnostics.

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 38 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 1999:675000 CAPLUS
DN 132:26944
TI Potential of flow-counterbalanced **capillary** **electrophoresis** for analytical and micropreparative separations
AU Chankvetadze, Bezhan; Burjanadze, Naira; Bergenthal, Dieter; Blaschke, Gottfried
CS Institute of Pharmaceutical Chemistry, University of Munster, Munster, Germany
SO Electrophoresis (1999), 20(13), 2680-2685
CODEN: ELCTDN; ISSN: 0173-0835
PB Wiley-VCH Verlag GmbH
DT Journal
LA English
AB The potential of flow-counterbalanced **capillary** **electrophoresis** (FCCE) in chiral and achiral sepns. was investigated in this work. Unlimited increase of the sepn. selectivity

can be achieved for binary mixts. using FCCE. This was shown for the enantiosepn. of (.+-.)-chlorpheniramine (CHL) with carboxymethyl-.beta.-cyclodextrin (CM-.beta.-CD) as chiral selector. The other example is the sepn. of .alpha.- and .beta.-isomers of a dipeptide aspartame (AS). The carrier ability of the (chiral) selector or pseudostationary phase, the electroosmotic flow (EOF), the pressure-driven flow or hydrodynamic flow can be used as a counterbalancing flow to the electrophoretic mobility of the analyte or vice versa. This mechanism can also be used for micropreparative purposes. FCCE also bears the potential for stepwise sepn. and **fraction collection** of multicomponent mixts.
RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 42 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 1999:299568 CAPLUS
DN 130:293607
TI A multichannel microscale system for high throughput preparative separation with comprehensive collection and analysis
IN Karger, Barry L.; Kotler, Lev; Foret, Frantisek; Minarik, Marek; Kleparnik, Karel
PA Northeastern University, USA
SO PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI WO 9922228 | A1 | 19990506 | WO 1998-US22522 | 19981023 |
| W: CA, JP, US | | | | |
| RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| CA 2306791 | AA | 19990506 | CA 1998-2306791 | 19981023 |
| EP 1025434 | A1 | 20000809 | EP 1998-955090 | 19981023 |
| R: CH, DE, FR, GB, IT, LI | | | | |
| JP 2001521169 | T2 | 20011106 | JP 2000-518273 | 19981023 |
| PRAI US 1997-62787P | P | 19971024 | | |
| WO 1998-US22522 | W | 19981023 | | |

AB A modular multiple lane or **capillary electrophoresis** (chromatog.) system that permits automated parallel sepn. and comprehensive **collection** of all **fractions** from samples in all lanes or columns, with the option of further online automated sample fraction anal., is disclosed. Preferably, **fractions** are **collected** in a multi-well **fraction collection** unit, or plate. The multi-well collection plate is preferably made of a solvent permeable gel, most preferably a hydrophilic, polymeric gel such as agarose or cross-linked polyacrylamide.
RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 58 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 1998:165219 CAPLUS
DN 128:292328
TI Nanogram scale separations of proteins using **capillary** high-performance liquid **chromatography** with fully-automated online microfraction collection followed by matrix-assisted laser desorption ionization time-of-flight mass spectrometry, protein sequencing and Western blot analysis
AU Grimm, Rudolf; Grasser, Klaus D.
CS Chemical Analysis Group Europe, Hewlett-Packard, 76337, Waldbronn, Germany
SO Journal of Chromatography, A (1998), 800(1), 83-88
CODEN: JCRAEY; ISSN: 0021-9673
PB Elsevier Science B.V.
DT Journal
LA English
AB Capillary HPLC was applied for highly sensitive protein sepns. on a nanogram scale. A crude ext. of acid sol. proteins from maize kernels was

used as a model ext. and [redacted]d. on a 300-.mu.m I.D. reverse [redacted]hase capillary column. Protei[redacted]ractions of 1-4 .mu.l vol. wer[redacted]ully automatically collected with a new robot microfraction collection system. **Fraction collection** was performed onto matrix assisted laser desorption ionization time-of-flight targets for mass spectrometric anal., onto sequencing membranes for automated Edman degrdn. and onto nitrocellulose membranes for Western blot anal.

L10 ANSWER 60 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 1997:784398 CAPLUS
DN 128:19138
TI Micropreparative **capillary electrophoresis** of DNA by direct transfer onto a membrane
AU Magnusdottir, Soffia; Heller, Christoph; Sergot, Phillipe; Viovy, Jean Louis
CS Laboratoire Physico-Chimie, Institut Curie, Paris, F-75231, Fr.
SO Electrophoresis (1997), 18(11), 1990-1993
CODEN: ELCTDN; ISSN: 0173-0835
PB Wiley-VCH Verlag GmbH
DT Journal
LA English
AB A new technique was developed for the collection of DNA fragments sepd. by **capillary electrophoresis**, by direct transfer from the capillary outlet to a pos. charged membrane. Transfer and post-run detection of 2 different nonradioactively labeled DNA stds., ranging in size from 150 bp-2 kbp and 120 bp-23 kbp are presented, and discussed. **Capillary electrophoresis** with direct blotting presents several advantages over the blotting from gels. The sepn. is faster and requires less manual steps, the resoln. is higher, and each DNA fragment is collected into a very concd. spot on the membrane due to the small surface of the capillary outlet and to a design of the collection device inducing a refocusing of field lines across the hybridization membrane. Very small amts. of DNA (in the pg range) can be detected. This **fraction collection** makes further anal. of the sample possible, e.g. by hybridization, thus suppressing one of the major present limitations of the **capillary electrophoresis** technique for DNA anal.

L10 ANSWER 66 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 1997:404331 CAPLUS
DN 127:92235
TI **Fraction collection** with micro-preparative **capillary electrophoresis**
AU Strausbauch, Michael A.; Wettstein, Peter J.
CS Department of Immunology, Mayo Clinic/Foundation, Rochester, MN, USA
SO Handbook of Capillary Electrophoresis (2nd Edition) (1997), 841-864.
Editor(s): Landers, James P. Publisher: CRC, Boca Raton, Fla.
CODEN: 64OZAB
DT Conference; General Review
LA English
AB A review with 35 refs. discussing stopped flow and continuous **fraction collection**, automated **fraction collection**, the basic **fraction collection** method into microvials, and **fraction collection** by pressure mobilization. Practical applications for micro-preparative **capillary electrophoresis** (pharmaceutical, nucleic acids, peptides, and proteins) are discussed.

L10 ANSWER 67 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 1997:375935 CAPLUS
DN 127:78012
TI Automated **fraction collection** in **capillary electrophoresis**
AU Grimm, R.
CS UK
SO Handbook of Capillary Electrophoresis Applications (1997), 128-136.
Editor(s): Shintani, Hideharu; Polonsky, Jozef. Publisher: Blackie,

London, UK.
CODEN: 64NGAH
DT Conference
LA English
AB The latest developments in automation of **fraction collection** was presented. Examples of anal. of peptides or proteins were shown for the **fraction collection** from a single run followed by a further characterization of the **collected fraction** by amino acid sequencing and by MALDI-TOF/MS (matrix assisted laser desorption ionization-tim of flight/mass spectrometry) from four major sepn. modes of CZE, MEKC (or MECC), CGE and CIEF.

L10 ANSWER 69 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 1997:319603 CAPLUS
DN 126:305934
TI Collection and analysis of macromolecules separated by **capillary electrophoresis** (**fraction collection**, mass spectrometry)
AU Chiu, Rick Wei-Rong
CS Univ. of California, Riverside, CA, USA
SO (1996) 177 pp. Avail.: Univ. Microfilms Int., Order No. DA9713897 From: Diss. Abstr. Int., B 1997, 57(11), 6890
DT Dissertation
LA English
AB Unavailable

L10 ANSWER 74 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 1996:601690 CAPLUS
DN 126:44554
TI Multiple peptide **fraction collection** by **capillary electrophoresis** with reinjection analysis
AU Boss, Hollis J.; Rohde, Michael F.; Rush, Robert S.
CS Amgen, Thousand Oaks, CA, USA
SO Peptide Research (1996), 9(4), 203-209
CODEN: PEREEO; ISSN: 1040-5704
PB Eaton
DT Journal
LA English
AB This paper addresses many of the optimization parameters necessary to convert from high-resoln. **capillary electrophoresis** (CE) anal. sepn. parameters to automated, micropreparative multiple **fraction collection** using software-controlled, interrupted applied voltage. Optimization of two parameters are crucial: (1) preparative sample loading and (2) detn. of peak collection windows. Factors affecting sample loading vol. are discussed, such as capillary inner diams., sample temps. and sample injection times. Peak collection windows were detd. exptl. and offer an advantage to windows calcd. by using a linear mobility relation, esp. for long run times, high current levels, and multiple voltage ramping required for multiple **fraction collection**. Reinjection anal. of both nonglycopeptides and glycopeptides are examd. and clearly indicate peak mobility can be employed for identifying the collected peptides. Difficulties assocd. with quantitation of the collected peaks by CE are described and appear to be predominantly assocd. with sample matrix effects.

L10 ANSWER 75 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 1996:582698 CAPLUS
DN 125:269657
TI Preparative **capillary electrophoresis** with wide-bore capillaries
AU Yin, Hongfeng; Keely-Templin, Catherine; McManigill, Douglass
CS Hewlett-Packard Laboratories, 3500 Deer Creek Road, Bldg. 26U, Palo Alto, CA, 94304, USA
SO Journal of Chromatography, A (1996), 744(1+2), 45-54
CODEN: JCRAEY; ISSN: 0021-9673
PB Elsevier

DT Journal
LA English
AB Sample load is in proportion to the square of capillary inner diam. in **capillary electrophoresis** (CE). With wide-bore capillaries, single run **fraction collection** of CE often gives enough material for further identification techniques, such as matrix-assisted laser desorption ionization time-of-flight (MALDI-TOF) MS and peptide sequencing. Limitations of using wide bore capillaries for CE and solns. to them are discussed in this investigation. An existing CE instrument has been modified in order to use wide-bore capillaries. Tryptic digest peptides have been identified with off-line wide bore CE-MALDI-TOF-MS techniques.

L10 ANSWER 77 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 1996:433680 CAPLUS
DN 125:136663
TI Micro-preparative applications of **capillary electrophoresis**
AU Altria, Kevin D.
CS Analytical Sciences, Glaxo Wellcome Research and Development, Ware Herts, UK
SO Isolation and Purification (1996), 2(2), 113-125
CODEN: IOPUEL; ISSN: 1065-6081
PB Gordon & Breach
DT Journal; General Review
LA English
AB A review with 31 refs. Various micropreparative operating procedures for use with **capillary electrophoresis** (CE) instrumentation are described. Several options are available to optimize the relatively small amts. collected. These options include use of wider bore capillaries, high sample concns. and pooling of fractions from injection sequences. An addnl. option is presented in this paper which involves performing several sepns. simultaneously within the same capillary. Micro-preparative application areas include **collection** of **fractions** from sepns. of proteins, peptides, pharmaceuticals, and bacteria. The amts. collected may be small, but useful, quantities and the fractions can be highly pure.

L10 ANSWER 78 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 1996:290685 CAPLUS
DN 125:29277
TI Separation, characterization, and **fraction collection** in the nanoliter domain with **capillary electrophoresis**
AU Paulus, Aran
CS Ciba Analytical Res., Basel, CH-4002, Switz.
SO Angewandte Chemie, International Edition in English (1996), 35(8), 857-859
CODEN: ACIEAY; ISSN: 0570-0833
PB VCH
DT Journal; General Review
LA English
AB A review with 12 refs. on applications and instrumental developments of **capillary electrophoresis**.

L10 ANSWER 79 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 1996:194196 CAPLUS
DN 124:317869
TI Micropreparative peptide separations by **capillary electrophoresis**
AU Herold, Marzell; Dollekamp, Herman; Grimm, Rudolf
CS Hewlett-Packard GmbH, Waldbronn, 76337, Germany
SO Recent Advances in Doping Analysis, Proceedings of the Cologne Workshop on Dope Analysis, 12th, Cologne, Apr. 10-15, 1994 (1995), Meeting Date 1994, 251-9. Editor(s): Donike, Manfred. Publisher: SPORT und BUCH Strauss, Cologne, Germany.
CODEN: 62ODAX
DT Conference
LA English

AB **Capillary electrophoresis** (CE) has been used for peptide anal. The author[redacted] have performed an automated **fra[redacted]ion collection** of peptides in the MEKC (micellar electrokinetic chromatog.) mode on a com. CE instrument. The peptides were identified by N-terminal sequencing in presence of 50 mM SDS.

L10 ANSWER 81 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 1996:99788 CAPLUS
DN 124:197515
TI **Fraction collection**
AU Altria, Kevin D.
CS Glaxo Res. Dev., Ware/Hertfordshire, UK
SO Methods in Molecular Biology (Totowa, NJ, United States) (1996), 52, 99-103
CODEN: MMBIED; ISSN: 1064-3745
DT Journal
LA English
AB **Fraction collection** by **capillary electrophoresis** is discussed.

L10 ANSWER 83 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 1995:949667 CAPLUS
DN 124:4288
TI Analysis of protein fractions by micropreparative **capillary isoelectric focusing** and matrix-assisted laser desorption time-of-flight mass spectrometry
AU Foret, F.; Mueller, O.; Thorne, J.; Goetzinger, W.; Karger, B. L.
CS Barnett Institute, Northeastern University, Boston, MA, 02115, USA
SO Journal of Chromatography, A (1995), 716(1 + 2), 157-66
CODEN: JCRAEY; ISSN: 0021-9673
PB Elsevier
DT Journal
LA English
AB In this study, the use of capillary isoelec. focusing (cIEF) as a micropreparative tool for protein anal. by matrix-assisted laser desorption time-of-flight mass spectrometry (MALDI-TOF-MS) is demonstrated. A newly designed, automated, collection interface equipped with a fiber-optic UV detector and a sheath flow connection was employed for **collection** of protein **fractions**. Multiple **fractions** were **collected** during a single cIEF run and further analyzed by MALDI-TOF-MS for mass assignment. The feasibility of the method was tested with a mixt. of model proteins with different isoelec. points and mol. masses, and with variants of human Hbs differing in pI, but with negligible difference in Mr. Some practical considerations of the collection procedure and subsequent TOF anal. are presented.

L10 ANSWER 85 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 1995:858997 CAPLUS
DN 123:358079
TI Coaxial capillary and conductive capillary interfaces for **collection** of **fractions** isolated by **capillary electrophoresis**
AU Chiu, Rick W.; Walker, Kathleen L.; Hagen, Jeffrey J.; Monnig, Curtis A.; Wilkins, Charles L.
CS Department of Chemistry, University of California, Riverside, CA, 92521-0403, USA
SO Analytical Chemistry (1995), 67(22), 4190-6
CODEN: ANCHAM; ISSN: 0003-2700
PB American Chemical Society
DT Journal
LA English
AB An instrument is described that allows the automated **collection** of **fractions** isolated by **capillary electrophoresis**. This instrument allows the elec. connection to be established with the sepn. capillary by using a coaxial capillary flow cell or by treating the outer surface of the capillary with a gold-filled

epoxy to allow electrophoresis. The coaxial interface is most useful when the electroosmotic flow in the capillary is small, and the conductive capillary interface is favored when diln. and contamination of the sample must be minimized. Both geometries permit closely spaced fractions to be acquired with minimal cross-contamination and diln. Sample recoveries were better than 80% and virtually independent of the chem. characteristics of the sample. Fractions isolated with this instrument were successfully analyzed by HPLC and electrospray mass spectrometry.

L10 ANSWER 86 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 1995:796818 CAPLUS
DN 123:192821
TI Multiple sequential **fraction collection** of peptides and glycopeptides by high-performance **capillary electrophoresis**
AU Boss, Hollis J.; Rohde, Michael F.; Rush, Robert S.
CS Protein Structure M/S 14-2-E, Amgen, Inc., Thousand Oaks, CA, 91320-1789, USA
SO Analytical Biochemistry (1995), 230(1), 123-9
CODEN: ANBCA2; ISSN: 0003-2697
PB Academic
DT Journal
LA English
AB Multiple sequential **fraction collection** of peptides and glycopeptides by high-performance **capillary electrophoresis** (HPCE) under applied voltage has been demonstrated from complex tryptic peptide maps. The collection methodol. was adapted from a high-resoln. glycopeptide mapping procedure and, as such, requires active temp. control of the sample, electrophoresis vials, and collection vials because the electrophoresis buffer system is highly conductive. Resoln. was compromised in the preparative HPCE sepn. due to heavy sample loading and to reduced voltage. The latter was a requirement for this buffer system to control Joule heating at the current levels employed; collections were routinely performed at approx. 1.5 W/m. The collection buffer was optimized by the addn. of 12% methanol (vol./vol.), thereby improving collection yields. Tryptic nonglycopeptides were group collected; secondary anal. of the HPCE collections agreed with anal. sepns. with respect to the no. of peptides contained in a given fraction. Sequentially **collected** peptide **fractions** were analyzed by Edman sequencing and MALDI mass spectrometry to verify peptide identity and sequence. Consistent peptide sequence or mass measurements were obtained for repeat collections. The isolation of the single pure glycopeptide indicates that unique glycopeptide structures can be collected by HPCE and then analyzed by other methods.

L10 ANSWER 87 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 1995:770349 CAPLUS
DN 123:192777
TI Micropreparative **capillary isoelectric focusing** of protein and peptide samples followed by protein sequencing
AU Grimm, Rudolf
CS Analytical Division Europe, Hewlett-Packard GmbH, Waldbronn, Germany
SO Journal of Capillary Electrophoresis (1995), 2(3), 111-15
CODEN: JCELF3; ISSN: 1079-5383
PB ISC Technical Publications
DT Journal
LA English
AB This paper presents a simple, straightforward method for fully automated micropreparative capillary isoelec. focusing (CIEF) of protein and peptide samples, including fully automated **fraction collection** from single runs followed by protein sequencing. Protein and peptide samples were sepd. by native CIEF. Micropreparative CIEF of proteins was carried out using capillaries with 100-.mu.m inner diam.; 75-.mu.m-i.d. capillaries were used for micropreparative CIEF of peptides. Protein and peptide components were automatically collected into vials contg. carrier ampholytes and reinjected to confirm successful **fraction**

**collection**. Remaining protein and peptide fractions containing carrier ampholytes were loaded directly onto the protein sequencer support without any further sample pretreatment. Protein samples were sequenced for up to 45 cycles.

L10 ANSWER 89 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 1995:714422 CAPLUS
DN 123:164286
TI Design of a High-Precision **Fraction Collector** for **Capillary Electrophoresis**
AU Muller, Odilo; Foret, Frantisek; Karger, Barry L.
CS Barnett Institute, Northeastern University, Boston, MA, 02115, USA
SO Analytical Chemistry (1995), 67(17), 2974-80
CODEN: ANCHAM; ISSN: 0003-2700
PB American Chemical Society
DT Journal
LA English
AB A high-precision **fraction collector** for **capillary electrophoresis** has been developed. The device utilizes detection close to the end of the capillary and a sheath liq. at the exit of the capillary, allowing continuous collection (i.e., uninterrupted applied elec. field) of multiple species. The role of the sheath liq. flow rate and position of detection in the column on the collection precision was assessed. Fiber-optic detection at .apprx.1 cm before the exit end of the capillary was found effective for precise timing of the collection. Up to 60 fractions of microliter or smaller vols. could be automatically collected into capillaries used as collection vials. The collection capillaries were placed on a cylinder, and a computer-controlled stepping motor aligned the appropriate capillary with the column exit. The effectiveness of the **fraction collector** was demonstrated in the **collection** of all 11 fragments of the HaeIII restriction digest of .PHI.X-174 plasmid DNA. Principal components regression amplification of the 271 and 281 bp fragments revealed an inversion of the size-dependent migration order.

L10 ANSWER 90 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 1995:643937 CAPLUS
DN 123:137949
TI Post-run analysis of proteins purified by **capillary electrophoresis** with membrane **fraction collection**
AU Cohen, Steven A.; Warren, William J.
CS Waters Pharmaceuticals Div., Millipore Corp., Milford, MA, 01757, USA
SO Techniques in Protein Chemistry V, [Papers from the Symposium of the Protein Society] -- 7th, San Diego, July 24-28, 1993 (1994), Meeting Date 1993, 293-302. Editor(s): Crabb, John W. Publisher: Academic, San Diego, Calif.
CODEN: 61PNAR
DT Conference
LA English
AB The utility of a membrane **fraction collector** interface for performing post-run anal. of **capillary electrophoresis** sepd. proteins is presented. The interface, since it is based on the continuous transfer of mols. emerging from the end of the capillary onto the moving membrane surface, preserves the spatial resoln. of the sepn. and permits **capillary electrophoresis** to be coupled with other anal. methods.

L10 ANSWER 93 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 1995:557618 CAPLUS
DN 122:310098
TI Micropreparative single run **fraction collection** of peptides separated by CZE for protein sequencing
AU Grimm, Rudolf; Herold, Marzell
CS Analytical Division Europe, Hewlett-Packard GmbH, Waldbronn, 76337, Germany
SO Journal of Capillary Electrophoresis (1994), 1(1), 79-82

CODEN: JCELF3; ISSN: 1079-5383
DT Journal
LA English
AB **Capillary** zone **electrophoresis** (CZE) was used for micropreparative sepns. and **fraction collection** of peptides from a proteolytic digestion of the bacterial chaperonin protein Cpn 10 (GroES). The peptide mixt. was sepd. on a 100 .mu.m i.d. capillary. Several peptide fractions of about 5-30 pmol quantities could be collected from single runs sufficient for N-terminal amino acid sequencing.

L10 ANSWER 97 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 1995:232250 CAPLUS
DN 122:106505
TI Preparative **capillary** zone **electrophoresis** of synthetic peptides. Conversion of an autosampler into a **fraction collector**
AU Lee, Huey G.; Desiderio, Dominic M.
CS The Charles B. Stout Neuroscience Mass Spectrometry Laboratory, University of Tennessee, Memphis, TN, 38163, USA
SO Journal of Chromatography, A (1994), 686(2), 309-17
CODEN: JCRAEY; ISSN: 0021-9673
PB Elsevier
DT Journal
LA English
AB Preparative **capillary** zone **electrophoresis** of three synthetic peptides was performed either manually or automatically by simple manipulations of a com. electropherograph that is equipped only with an autosampler without any built-in **fraction collection** capability. Manual **fraction collection** was achieved by replacing the outlet (cathode) beaker with a microcentrifuge tube, and automatic **fraction collection** was accomplished by converting the electropherograph's autosampler into a **fraction collector**. The latter was easily achieved mainly by the use of an extension wire, which completed the elec. circuit and facilitated **fraction collection** either at a specified time or within fixed time intervals.

L10 ANSWER 99 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 1994:676178 CAPLUS
DN 121:276178
TI Method of **capillary isoelectric focusing** of proteins and peptides with **fraction collection** for post-run analysis.
IN Merion, Michael; Cheng, Yung-Fong
PA Waters Investments Ltd., USA
SO Eur. Pat. Appl., 13 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | EP 617048 | A1 | 19940928 | EP 1994-104627 | 19940323 |
| | R: DE, FR, GB | | | | |
| | JP 06321984 | A2 | 19941122 | JP 1994-77756 | 19940325 |
| PRAI | US 1993-37945 | | 19930326 | | |

AB A method for performing capillary isoelec. focusing (cIEF) of protein and peptide analytes with **fraction collection** for the purpose of post sepn. anal. is disclosed. Use of this method provides a large amt. of sample which can be sepd. and recovered on a porous substrate while preserving the sepn. efficiency. The large amt. of collected sample components may easily be subjected to further anal. such as protein sequencing and amino acid anal. The cIEF method is conducted by a **capillary electrophoresis** (CE) system which includes a fused silica capillary, a high voltage power supply, an electrolyte reservoir at one end of the capillary and a porous substrate

at the other, means for injecting a sample, and a detector. In carrying out the method, a protein contg. sample is mixed with suitable ampholytes and loaded into the capillary. Subsequent application of the high voltage results in the formation of a pH gradient along the length of the capillary, and more slowly, the migration of the protein analytes to their isoelec. point. The discrete focused zones of analyte are then eluted onto a porous substrate using the bulk fluid flow (electroosmotic flow) or other mobilization techniques assocd. with the operation of the system. The collected samples become bound to the porous substrate and may then be subjected to further anal. CIEF/**fraction collection** of cytochrome c and subsequent amino acid anal. are described.

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L10 ANSWER 100 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 1994:675864 CAPLUS
DN 121:275864
TI Automated peptide **fraction collection** in CE
AU Herold, Marzell; Wu, Shiaw-Iin
CS Hewlett-Packard GmbH, Analytical Division, Waldbronn, 76337, Germany
SO LC-GC (1994), 12(7), 531-3
CODEN: LCGCE7; ISSN: 0888-9090
DT Journal
LA English
AB Automated peptide **fraction collection** methods are examd. in **capillary electrophoresis**.

L10 ANSWER 104 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 1994:264948 CAPLUS
DN 120:264948
TI Protein immunodetection using **capillary electrophoresis** with membrane **fraction collection**
AU Warren, William J.; Cheng, Yung Fong; Fuchs, Martin
CS Waters Div., Millipore Corp., Milford, MA, 01757, USA
SO LC-GC (1994), 12(1), 22, 24, 26-8
CODEN: LCGCE7; ISSN: 0888-9090
DT Journal
LA English
AB The data presented provide further evidence of the usefulness of a membrane **fraction collector** interface for performing post-run anal. of proteins sepd. by capillary **electrophoresis** (CE). Because it is based on the continuous transfer of mols. emerging from the end of the capillary onto the moving membrane surface, the interface preserves the spatial resoln. of the sepn. and permits the coupling of CE with other anal. methods.

L10 ANSWER 106 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 1994:158137 CAPLUS
DN 120:158137
TI Electrophoretic electrode, method of/and system for **capillary electrophoresis** using the **electrophoretic** electrode and **fraction collector** assembled into the **capillary electrophoresis** system
IN Fujimoto, Chuzo
PA Nakano Vinegar Co., Ltd., Japan
SO Eur. Pat. Appl., 16 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | EP 576361 | A2 | 19931229 | EP 1993-401622 | 19930624 |
| | EP 576361 | A3 | 19941117 | | |
| | R: DE, FR, GB, IT, NL | | | | |
| | JP 06074937 | A2 | 19940318 | JP 1993-83747 | 19930305 |
| PRAI | JP 1992-208382 | | 19920626 | | |
| | JP 1993-83747 | | 19930305 | | |

AB The title electrophoretic electrode has two capillaries possessing different diams. and which are coaxially telescopically disposed to form a gap having a predetd. width dimension between them, electrophoresis being caused in the gap. The electrode has an intermediate fractured portion, which is covered by a cover material, i.e., polyacrylamide gel contg. an electrolytic buffer soln. to form an elec. connected portion. The sample undergoing electrophoresis in the gap may be cooled by supplying a coolant in the inner capillary. A **fraction collector** is provided downstream of a detecting means, for continuously and automatically collecting the purified substances. The electrode may be used for electrophoresis to sep. a large quantity of electrophoretically purified substance continuously and quickly. Views of coaxial capillary

systems are shown. A system was used to preparatively sep[redacted] .epsilon.-DNS-L-Lys and [redacted]-L-Val.

L10 ANSWER 108 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 1994:72745 CAPLUS
DN 120:72745
TI Micropreparative **capillary electrophoresis**
AU Fujimoto, Chuzo; Jinno, Kiyokatsu
CS Toyohashi Univ. Technol., Toyohashi, Japan
SO Chromatographic Science Series (1993), 64(Capillary Electrophoresis Technology), 509-23
CODEN: CHGSAL; ISSN: 0069-3936
DT Journal
LA English
AB Several attempts were made to collect nanogram-to-microgram amts. of substances, e.g., biomols. and biopolymers, sepd. by **capillary electrophoresis** (CE). Apparently completion of an elec. circuit before the capillary outlet for **fraction collection** is more promising than with the collection methods involving interruption of applied voltage. To do this, 4 types of elec. connectors were developed. Besides the elec. connection ability, the recovery of analyte, the reproducibility of elution time, the ease of construction, the mech. durability, and the connector contribution to extra-column zone broadening are all important practical considerations for a good elec. connector. Probably a micropreparative CE system based on one of the methods described in this chapter or any other method will become available com. within several years.

L10 ANSWER 109 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 1994:68388 CAPLUS
DN 120:68388
TI Semipreparative **capillary electrophoresis** and its advantages
AU Tsuda, Takao
CS Nagoya Inst. Technol., Nagoya, Japan
SO Chromatographic Science Series (1993), 64(Capillary Electrophoresis Technology), 489-508
CODEN: CHGSAL; ISSN: 0069-3936
DT Journal; General Review
LA English
AB A review, with 21 refs., is given on methods for achieving the semipreparative mode in **capillary electrophoresis**, which is necessary to obtain spectra of sepd. species. Some of the methods discussed are: use of a bundle of multiple capillaries, the use of a concentrator in the column head, and **collection** of **fractions** with multiple runs.

L10 ANSWER 110 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 1993:576959 CAPLUS
DN 119:176959
TI Studies in **capillary** zone **electrophoresis** with a post-column multiple capillary device for **fraction collection** and stepwise increase in electroosmotic flow during analysis
AU Nashabeh, Wassim; Smith, Joel T.; El Rassi, Ziad
CS Dep. Chem., Oklahoma State Univ., Stillwater, OK, 74078-0447, USA
SO Electrophoresis (1993), 14(5-6), 407-16
CODEN: ELCTDN; ISSN: 0173-0835
DT Journal
LA English
AB A new approach involving the stepwise increase in electroosmotic flow during anal. in **capillary** zone **electrophoresis** is introduced and evaluated in the rapid sepns. of proteins and peptides. The stepwise increase in electroosmotic flow is based on the principle of coupled capillaries in series having different flow characteristics, a concept that was introduced recently. To produce stepwise changes in electroosmotic flow during anal., a post-column multiple capillary device,

which allowed the switching between several coupled capillary systems, was designed and constructed in-house. The utility of the multiple capillary device was also demonstrated and extended to **fraction collection** of sepd. analytes in short capillary segments. The **fraction collection** in capillaries facilitated the quant. transfer of the **collected fractions** to high performance liq. chromatog. (HPLC) for further anal. or to mass spectrometry (MS) for structural detn. The off-line combination of **capillary** zone **electrophoresis** with HPLC or MS utilized com. instruments without the need of expensive interfacing designs.

L10 ANSWER 113 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 1993:512893 CAPLUS
DN 119:112893
TI **Fraction collection** after an optimized micellar electrokinetic **capillary chromatographic** separation of nucleic acid constituents
AU Lecoq, Anne Francesca; Di Biase, Sebastiano; Montanarella, Luca
CS CEC Jt. Res. Cent., Environ. Inst., Ispra, 21020, Italy
SO Journal of Chromatography (1993), 638(2), 363-73
CODEN: JOCRAM; ISSN: 0021-9673
DT Journal
LA English
AB The possible use of **capillary electrophoresis** (CE) in micellar conditions with fast atom bombardment mass spectrometry (FAB-MS) for the characterization of DNA adducts with the ultimate goal of detg. these compds. in biol. matrixes was explored. A method for fraction collection from an optimized and automated micellar electrokinetic capillary chromatog. (MECC) system is described. Parameters such as the reproducibility of migration times and injection and the max. mass loadings are addressed. **Fractions** were **collected** directly in a small vol. (5 .mu.L) of buffer with sodium dodecyl sulfate (SDS) with recoveries of >75%. The **fractions collected** were further analyzed using MECC and FAB-MS. Preliminary anal. by FAB-MS showed high background signals due to the presence of the SDS, demonstrating the difficulties that will be encountered with fractions deriving from a micellar sepn. and the need for more detailed investigations of the mass spectrometric conditions in this special case.

L10 ANSWER 114 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 1993:261087 CAPLUS
DN 118:261087
TI Peak homogeneity determination and micro-preparative **fraction collection** by **capillary electrophoresis** for pharmaceutical analysis
AU Altria, K. D.; Dave, Y. K.
CS Pharm. Anal., Glaxo Group Res., Park Road, Ware, Herts., UK
SO Journal of Chromatography (1993), 633(1-2), 221-5
CODEN: JOCRAM; ISSN: 0021-9673
DT Journal
LA English
AB This paper described the novel employment of micropreparative **capillary electrophoresis** to a pharmaceutical anal. problem. **Capillary** zone **electrophoresis** (CZE) and HPLC are used sep. to quantify drug related impurity levels. Good agreement was obtained between the two techniques. Peak homogeneity was detd. for both fractions obtained by HPLC and CZE. This peak purity detn. was achieved by analyzing the appropriate fraction by the alternative technique. This work demonstrates that CZE and HPLC, used together, are a powerful anal. combination.

L10 ANSWER 115 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 1993:55305 CAPLUS
DN 118:55305
TI Membrane **fraction collection** for **capillary electrophoresis**

AU Cheng, Yung-Fong; Fuchs, Martin; Andrews, David; Carson, William
CS Millipore Corp., Waters Chromatogr. Div., 34 Maple St., Milford, MA, 01757, USA
SO Journal of Chromatography (1992), 608(1-2), 109-16
CODEN: JOCRAM; ISSN: 0021-9673
DT Journal
LA English
AB A simple instrument system combining high-performance **capillary electrophoresis** (CE) and membrane technol. is described. CE **fraction collection** is successfully implemented using a membrane assembly at the exit end of a capillary to complete the elec. circuit for electrophoretic sepn. This membrane assembly consists of a poly(vinylidene difluoride) membrane, a buffer reservoir (two layers of 3 MM Chrom filter-paper) and a stainless-steel plate as the ground electrode. Two model proteins are sepd. and collected on the membrane. Direct protein sequencing is demonstrated from this membrane after CE **fraction collection**.

L10 ANSWER 116 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 1992:629471 CAPLUS
DN 117:229471
TI The use of **capillary electrophoresis** in a micropreparative mode: methods and applications
AU Albin, Michael; Chen, Shiaw Min; Louie, Andrea; Pairaud, Claire; Colburn, Joel; Wiktorowicz, John
CS Appl. Biosyst., Foster City, CA, 94404, USA
SO Analytical Biochemistry (1992), 206(2), 382-8
CODEN: ANBCA2; ISSN: 0003-2697
DT Journal
LA English
AB The ability to collect sufficient quantities of analytes from **capillary electrophoresis** for subsequent analyses is demonstrated. **Fractions collected** were analyzed by the following techniques: **capillary electrophoresis**, mass spectrometry, and protein sequencing. **Fractions** can be **collected** directly into small vols. of buffer or directly onto membrane surfaces. Relevant parameters such as capillary diam., mass loading, and sepn. parameters are addressed.

L10 ANSWER 118 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 1992:439574 CAPLUS
DN 117:39574
TI Method and apparatus for **capillary electrophoresis fraction collection** on a membrane
IN Carson, William W.; Fuchs, Martin; Cheng, Yung Fong
PA Millipore Corp., USA
SO Eur. Pat. Appl., 10 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | EP 477541 | A2 | 19920401 | EP 1991-114191 | 19910823 |
| | EP 477541 | A3 | 19940720 | | |
| | EP 477541 | B1 | 19970305 | | |
| | R: DE, FR, GB | | | | |
| | US 5126025 | A | 19920630 | US 1990-575111 | 19900830 |
| | JP 04264253 | A2 | 19920921 | JP 1991-240239 | 19910828 |
| PRAI | US 1990-575111 | | 19900830 | | |

AB An electrode structure is provided for isolating a solute sample which has been analyzed by **capillary electrophoresis**. The app. comprises an elec. conductive layer connected to a source of elec. energy, a porous layer contg. an elec. conductive electrolyte positioned on the conductive layer, and a capillary tube in contact with the porous layer. The sample exiting from the capillary tube is retained by the porous layer under the influence of a voltage induced at the conductive layer.

L10 ANSWER 119 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 1992:425604 CAPLUS
DN 117:25604
TI Sample collection by a **capillary** zone **electrophoretic** system with an on-column fracture
AU Fujimoto, Chuzo; Fujikawa, Takafumi; Jinno, Kiyokatsu
CS Sch. Mater. Sci., Toyohashi Univ. Technol., Toyohashi, 441, Japan
SO Journal of High Resolution Chromatography (1992), 15(3), 201-3
CODEN: JHRCE7; ISSN: 0935-6304
DT Journal
LA English
AB An on-column **fracture** enables continuous **collection** of solute at an elec. isolated exit while maintaining the elec. connection. The method was applied to sample collection in **capillary** zone **electrophoresis** of dansyl-L-lysine or -valine.

L10 ANSWER 120 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 1992:190372 CAPLUS
DN 116:190372
TI Preparative **capillary electrophoresis** based on adsorption of the solutes (proteins) onto a moving blotting membrane as they migrate out of the capillary
AU Eriksson, Kjell Ove; Palm, Anders; Hjerten, Stellan
CS Dep. Biochem., Univ. Uppsala, Uppsala, S-751 23, Swed.
SO Analytical Biochemistry (1992), 201(2), 211-15
CODEN: ANBCA2; ISSN: 0003-2697
DT Journal
LA English
AB A micropreparative **capillary electrophoresis** app. equipped with a new type of **fraction collection** device is described: solutes, such as proteins, are adsorbed onto a moving blotting membrane (for instance a polyvinylidene difluoride membrane) as they migrate electrophoretically out of the capillary. The adsorbed proteins are visualized by conventional protein staining methods or by fluorescent labeling. Specific identification of sepd. components by an immunol. technique is demonstrated. The method also offers the potential to analyze proteins and peptides collected on the membrane by gas phase sequencing and mass spectrometry.

L10 ANSWER 121 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 1992:17513 CAPLUS
DN 116:17513
TI Detection of enzyme activity in **fractions collected** from free solution **capillary electrophoresis** of complex samples
AU Banke, Niels; Hansen, Kim; Diers, Ivan
CS Novo Nordisk A/S, Bagsvaerd, DK-2880, Den.
SO Journal of Chromatography (1991), 559(1-2), 325-35
CODEN: JOCRAM; ISSN: 0021-9673
DT Journal
LA English
AB Crude fermn. broth from a fermn. of Aspergillus oryzae was analyzed using free soln. **capillary electrophoresis** (FSCE) in an alk. running buffer. **Fractions** as large as possible were **collected** after FSCE sepn. and analyzed for alk. protease activity with Suc-Ala-Ala-Pro-Phe-p-nitroanilide as substrate. Two peaks were isolated; one of them was unknown and therefore was further investigated. After amplification of the activity by incubation with Suc-Ala-Ala-Pro-Phe-p-nitroanilide or casein as substrate, the reaction mixts. were analyzed by FSCE. In this way, as little as 3 ng of enzyme were identified as an alk. protease of the subtilisin family.

L10 ANSWER 124 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 1991:224986 CAPLUS
DN 114:224986
TI **Capillary electrophoretic** separation of amino acids:

**fraction collection**
AU Fujimoto, Chuzo; Muramat[redacted] Yoshie; Suzuki, Misa; Jinno, [redacted]okatsu
CS Sch. Mater. Sci., Toyohashi Univ. Technol., Toyohashi, 441, Japan
SO Journal of High Resolution Chromatography (1991), 14(3), 178-80
CODEN: JHRCE7; ISSN: 0935-6304
DT Journal
LA English
AB A simple method is described which enables solutes to be collected at an elec. isolated exit after they have been sepd. by a free soln. **capillary electrophoretic** system. The method is illustrated by the sepn. of dansyl amino acids using multiple sepn. capillaries.

L10 ANSWER 127 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 1990:210357 CAPLUS
DN 112:210357
TI Fractionation and sample loading by cassette in **capillary electrophoresis**
IN Burd, Samuel
PA Bio-Rad Laboratories, Inc., USA
SO U.S., 6 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI US 4911807 | A | 19900327 | US 1989-403527 | 19890905 |
| PRAI US 1989-403527 | | 19890905 | | |

AB Short capillary segments are introduced in succession into the current path of a **capillary electrophoresis** system, either at the downstream end of the sepn. capillary for purposes of **collecting** the eluting species in **fractions**, or at the upstream end for purposes of sequential sample loading. The segments are preferably contained in mobile cassettes whose motion is governed by either continuous or stepper motors at a controlled rate depending on which position the cassette occupies in the solute migration path.

L10 ANSWER 129 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 1990:111180 CAPLUS
DN 112:111180
TI Use of an on-column frit in **capillary** zone **electrophoresis**: sample collection
AU Huang, Xiaohua; Zare, Richard N.
CS Dep. Chem., Stanford Univ., Stanford, CA, 94305, USA
SO Analytical Chemistry (1990), 62(5), 443-6
CODEN: ANCHAM; ISSN: 0003-2700
DT Journal
LA English
AB The design of a simple, on-column frit for capillaries is described. The frit allows elec. connection to be made to the capillary so that the frit segment of the capillary (inlet to frit) may be used for electrokinetic sepns. while the second segment (frit to outlet) is free of applied elec. field, facilitating its use either for electrochem. detection or for sample collection. The latter is illustrated, and a quant. study is made of its performance as a **fraction collector**.

L10 ANSWER 130 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 1990:18468 CAPLUS
DN 112:18468
TI Analytical and micropreparative ultrahigh resolution of oligonucleotides by polyacrylamide gel high-performance **capillary electrophoresis**
AU Guttman, A.; Cohen, A. S.; Heiger, D. N.; Karger, Barry L.
CS Barnett Inst., Northeast. Univ., Boston, MA, 02115, USA
SO Analytical Chemistry (1990), 62(2), 137-41
CODEN: ANCHAM; ISSN: 0003-2700

DT Journal
LA English
AB Polydeoxyoligonucleotides were sepd. on polyacrylamide gel capillary columns. The use of gel compns. with relatively low monomer content permits columns of very high plate nos. to be obtained. With a 160-mer, plate counts of 30 .times. 106/m are shown. Columns with high precision in relative migration time from run to run, day to day, and batch to batch are presented. A **collection** of purified **fractions** from high-resoln. electrophoresis also is shown to be feasible using field programming techniques. To accomplish this, sepn. occurs under high field for resoln. and speed, followed by collection under low field where the velocity of the band is purposely decreased to widen the time-based width of the band.

L10 ANSWER 132 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 1988:182985 CAPLUS
DN 108:182985
TI **Fraction collector** for **capillary** zone **electrophoresis**
AU Rose, Donald J.; Jorgenson, James W.
CS Dep. Chem., Univ. North Carolina, Chapel Hill, NC, 27599-3290, USA
SO Journal of Chromatography (1988), 438(1), 23-34
CODEN: JOCRAM; ISSN: 0021-9673
DT Journal
LA English
AB An instrument is described which is capable of **collecting fractions** from a **capillary** zone **electrophoresis** app. The **fraction collector** is characterized in terms of discretely collecting the sepd. components of a multi-component sample. In addn., the **fraction collector** permits the study of the effect of **capillary** zone **electrophoresis** on the biol. activity of .alpha.-chymotrypsin.

L10 ANSWER 133 OF 139 CAPLUS COPYRIGHT 2003 ACS
AN 1987:442259 CAPLUS
DN 107:42259
TI Preparative **capillary** gas **chromatography**. II. **Fraction collection** on traps coated with a very thick film of immobilized stationary phase
AU Blomberg, S.; Roeraade, J.
CS Dep. Anal. Chem., R. Inst. Technol., Stockholm, S-100 44, Swed.
SO Journal of Chromatography (1987), 394(3), 443-53
CODEN: JOCRAM; ISSN: 0021-9673
DT Journal
LA English
AB An open-tube trap coated with an 80-.mu. film of a cross-linked silicone stationary phase is used. Breakthrough vols. for a no. of volatile org. compds. were calcd. from their capacity factors and band broadening. The trap showed a very high retention, as expected from the low phase ratio, .beta. = 1.44. C6H6, e.g., had a capacity factor of 285 at room temp. The retention of the thick-film trap is roughly comparable to the retention in an empty tube at a temp. that is 80-90.degree. lower. It is possible to **collect** volatile **fractions** at room temp. from the eluent of a capillary column over an extended period. The recovery of the collected substances was done either by thermal desorption or by extn. with pentane. A nearly complete yield of the trapped material was obtained in both cases.

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